HONORABLE JAMES L. ROBART

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

MICROSOFT CORPORATION, Plaintiff, v. MOTOROLA INC., et al., Defendants.	No. C10-1823-JLR **REDACTED** PLAINTIFF MICROSOFT CORPORATION'S POST-TRIAL BRIEF
MOTOROLA MOBILITY, LLC., et al., Plaintiffs, v. MICROSOFT CORPORATION, Defendant.	

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INTRODUCTION

According to Motorola's expert Richard Schmalensee, in the event of a disagreement about whether particular royalties are RAND royalties, the "Court needs to step in and say what is good faith, what is RAND." (11/19/12 Tr. 170.) That is now the task before the Court.

Microsoft, through its economic and technical experts, has provided a comparables-based methodology for determining RAND royalties, anchored in the economic principles underlying the RAND commitment, which prevents patent owners from abusing the power conveyed by standardization. Microsoft's proposed valuation methodology using real-world comparables (a common approach in real estate and many other markets) assures that the RAND royalty for Motorola's patents tracks what the market evidence shows are truly reasonable and non-discriminatory royalties for the use of a few patents from the broad, complex technical standards at issue.

Motorola, by contrast, has offered nothing of value to the Court in setting a RAND royalty. It repeatedly promised, but failed to provide, a "modified" *Georgia-Pacific* analysis. Its economist, Schmalensee, largely agreed with Microsoft. Its technical experts failed to establish in any rigorous way that the Motorola patents represent anything more than isolated and dated aspects of the standards, or are better than available alternatives. Motorola's valuation expert Dansky confirmed the obvious—that the *standards* themselves are often important to Microsoft's products—but offered no testimony on the importance of Motorola's *patents* to the standard or to Microsoft. And while Motorola's license expert Donohoe briefly testified about a few Motorola license agreements, they are demonstrably noncomparable and provide no meaningful guidance. In the end, Motorola provided neither useful real-world evidence nor a coherent methodology for determining a RAND royalty.

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ARGUMENT

I. RAND VALUATION MUST REFLECT CORE RAND PRINCIPLES.

A. RAND Principles Include Prevention of Hold-Up and Stacking Problems, and Recognize the Non-Royalty Benefits of Standardization to Patent Owners.

Standard setting organizations ("SSOs") develop standards to facilitate interoperability and widespread adoption of particular technologies. Economists recognize that significant efficiencies and other benefits may be achieved merely from the adoption of a uniform standard, regardless of whether the standard reflects any technological advances. (*E.g.*, 11/13/12 Tr. 140 (Murphy).)

A patent may be considered "essential" to a standard if the patent is necessary to implement either a mandatory or optional section of a standard. (11/16/12 Tr. at 17 (Simcoe); 11/19/12 Tr. 71–72 (Williams); Ex. 1568 at MS-MOTO_1823_00004073096 (IEEE-SA Standards Board Bylaws).) Although the trial testimony focused on certain patented aspects of the two standards at issue, this patent-based perspective distorts in important ways the actual standards development process. Most of the technology reflected in popular standards like H.264 and 802.11 is unpatented—built on technologies known to the engineers collaborating to write the standard, or on unpatented contributions from those engineers or from prior technology. (11/14/12 Tr. 114–15 (Orchard); 11/13/12 Tr. 215 (Sullivan); 11/14/12 Tr. 43 (Sullivan); 11/15/12 Tr. 96 (Gibson).) Moreover, most of what is included in the standards does not involve a conscious choice by the collaborating engineers between alternatives or between patented technologies—and the inclusion of a given technology in a standard does not mean that it was superior to alternatives. There is no evidence that these engineers commonly consider specific patents or that they are even conscious of what might be patented when framing the standards. Typically, patents are just not considered. (11/15/12 Tr. 199 (Gibson); 11/15/12 Tr. 43–44 (Sullivan); 11/19/12 Tr. 22 (Luthra).) In the end, however, a successful and widely adopted standard may well implicate thousands of patents worldwide.

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1. RAND Valuation Must Address Hold-Up.

SSOs and regulators recognize that standard-essential patents ("SEPs") may be used to block firms from implementing a standard and could impede its adoption. Without meaningful checks, SSO participants could use patents to unfairly exploit the standardization process. For example, they could submit their own patented technology to the SSO for consideration, in the guise of providing broader interoperability. If the suggested technologies are incorporated in the standard, and the standard is broadly adopted, the patent holder's patents provide it leverage to pounce on implementers, including its competitors. Even in the absence of such intent, every patented technology incorporated into a broadly-adopted standard endows the patent holder with the ability to hold up implementers, independent of any technical or commercial merit in the patent. As one of Motorola's economic experts in other litigation pointed out, "it only takes one bullet to kill"—and any SEP is a bullet.

The peer-reviewed literature universally recognizes this danger of hold-up. The solution imposed by virtually all SSOs is to require that SEPs be licensed on RAND terms, and as Schmalensee put it, "the RAND commitment and the whole apparatus exists to deal with hold-up." (11/19/12 Tr. 142.) This follows from the straightforward economic principle that firms with sunk costs in implementing a technology cannot readily switch to different technical solutions. These switching costs and inefficiencies make implementers vulnerable to patent holders exploiting the power of their SEPs. But the SEP holder that has made a RAND commitment is not entitled to exploit this hold-up leverage. (11/19/12 Tr. 169 (Schmalensee).) Restraining this hold-up power is the first and most important of the core economic principles underlying the RAND commitment.

2. RAND Valuation Must Track Basic Principles of Patent Valuation.

A broadly-accepted economic and legal principle is that a patent owner is entitled to the value of the use of its patent, and not to the value of the benefits of others' SEPs or of the

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standard as a whole. This principle comports with patent valuation in general, and is especially acute in the RAND context. Complex standards arise from the contributions of dozens, if not hundreds, of companies, research institutes, and universities. And with complex interoperability standards, the relative overall contribution of any specific piece of technology tends to be small, reflecting incremental changes. Apportionment is critical in a RAND valuation because no party is entitled to compensation for unpatented aspects of the technology or for improvements provided by other companies, much less for the value of the standard as a whole. The principle of apportionment to limit damages compensation for patent infringement to the patent owner's contribution has long been recognized by the Supreme Court, the Ninth Circuit (in the pre-Federal Circuit era), and the Federal Circuit. *See Sheldon v. Metro-Goldwyn Pictures Corp.*, 309 U.S. 390, 402 (1940); *Garretson v. Clark*, 111 U.S. 120, 121 (1884); *Velo-Bind, Inc. v. Minnesota Min. & Mfg. Co.*, 647 F.2d 965, 973 (9th Cir. 1981); *LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 69–70 (Fed. Cir. 2012); *Uniloc USA, Inc. v. Microsoft Corp.*, 632 F.3d 1292, 1318 (Fed. Cir. 2011). Schmalensee endorsed the need for an apportionment analysis, stating that if "you wanted to determine whether a royalty for Motorola's 802.11 standard-essential patents was consistent with its RAND obligation, you would want to look at the value of the overall standard and Motorola's contribution to that value." (11/19/12 Tr. 166.) No witness disputed this point; rather, as Simcoe testified, this perspective on the RAND commitment "reflected commonly held views." (11/16/12 Tr. 75.)

When many patents are implicated in a given standard, the payment of even a seemingly modest amount to each patent holder can, in the aggregate, erect an economic barrier to using the standard—the "stacking" problem. To avoid this problem, the magnitude of any individual royalty claim also has to be assessed in light of the potential claims of all other patent holders. The stacking problem becomes even more severe when all patents essential to the *multiple* standards that apply to complex technological products are considered

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together. Motorola conceded that stacking is a real risk in its pretrial proposed findings of fact. (Dkt. No. 462 at ¶ 13.) Likewise, in a submission to the European Telecommunications Standards Institute ("ETSI"), Motorola (together with two other companies) observed that the increase in "multi-function, multi-technology products" covered by "ever more patents" has given rise to "the phenomenon of … 'royalty-stacking." (Ex. 1031 at 2.) It then described a proposed "clarification of existing [RAND] rules" to make clear that SEP holders must

> grant licenses on terms that are objectively commercially reasonable, taking into account the overall licensing situation, including the cost of obtaining all necessary licenses from other relevant patent holders for all relevant technologies in the end product.

(Ex. 1031 at 3.) It was necessary, according to Motorola, to send a "signal to judges in patent litigation that they can and should look at the overall cumulative royalty costs for a given standard, and not just assess whether the terms being offered by one particular licensor are fair and reasonable *in vacuo*." (*Id.*)

3. RAND Valuation Should Consider Other Economic Benefits Of Standardization to Patentees.

A third economic principle underlying RAND is that firms can derive substantial benefit from having their technology incorporated into standards, irrespective of whether they ever seek or are paid royalties on their patents. As Professor Simcoe explained, these benefits include diffusion of their technology, lower costs in implementing the chosen technology, and faster time to market. (11/16/12 Tr. 40.) Motorola's Ajay Luthra explained that getting Motorola's technology into the H.264 standard also provided opportunities for royalty-free cross-licensing with other companies holding H.264 SEPs. (Ex. 420 at 1.) For many owners of SEPs, those noncash benefits are more than a sufficient return on their investments in research and development, and obviously sufficient to induce participation in the SSO process. It is not unusual for companies to participate in SSOs and contribute their technology, but never try to license their patents for cash. (*E.g.*, 11/19/12 Tr. 174 (Schmalensee) ("[P]atent

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rights are often not asserted in this part of the world."); 11/13/12 Tr. 160 (Murphy) ("[T]here's very little licensing of 802.11 patents, generally. . . . [T]he most common rate is actually zero, that most people are actually collecting.").) Even foundational contributors, such as Telenor in H.264 development, forego patents and potential royalties entirely. (11/14/12 Tr. 115 (Orchard); 11/13/12 Tr. 215 (Sullivan).) These SSO participants are not walking away empty-handed because they reap substantial benefits in ongoing and future sales of their products.

As the Institute of Electrical and Electronic Engineers (the "IEEE"), publisher of the 802.11 standard, recognized in its Operations Manual (part of the participants' undertaking when Motorola submitted its blanket letters of assurance), licensing SEPs on RAND terms means (at least with respect to Motorola's 802.11 patents) licensing at "nominal competitive cost." (11/16/12 Tr. 27–30 (Simcoe); Ex. 1130 at 19.) Motorola's doomsday arguments about the collapse of the standards system if companies cannot extract high royalties (*e.g.*, Dkt. No. 541 (Motorola Trial Br.) at 1, 10) are fallacious, because they overlook the myriad motivations that companies have to contribute their technology to standards, the fact that an unchecked effort to extract high royalties would itself doom standardization (11/13/12 Tr. 144–45 (Murphy)), and the fact that some SSOs actually require royalty-free licensing.

Finally, a RAND valuation must recognize that a license for only a standard-compliant implementation has less value than an unrestricted license. RAND commitments do *not* entitle implementers to use the patents for anything other than an implementation of the standard. (*E.g.*, Ex. 2839). Because a RAND value can never exceed the value of an unrestricted license, traditional patent damages law principles, such as the "entire market value rule," that apply a check on patent damages likewise serve as a further check on RAND valuation.

Motorola suggested that the Court should ignore hold-up and stacking because (according to Motorola) they have not been problems in the past. (*E.g.*, 11/13/12 Tr. 177–78

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(Murphy).)[1] There are two fallacies in this argument. First, the evidence shows that there *has* been hold-up by Motorola, including in the very licenses it urges the Court to consider as "comparables." (11/20/12 Tr. 101–03 (Dailey).) Second, even if other companies have complied with their obligations (so hold-up and stacking have not been problems), that proves nothing: the issue here is the royalty Motorola demands, which, if duplicated by others, would render implementation of the standards impossible. (11/16/12 Tr. 179 (Lynde); 11/13/12 Tr. 145–46, 150–51, 201–02 (Murphy).) That is the true measure of "hold up" and stacking.

B. These Core RAND Principles, Considered On This Record, Translate to a Comparable-Based Valuation Methodology.

1. RAND Valuation Requires Consideration of Alternatives.

The Court must here translate the core economic principles underlying RAND into a workable methodology. Many commentators have proposed that one way of assessing a RAND royalty is to determine the value of the patent, before adoption or implementation of the standard, in comparison to available alternatives that could have been adopted instead. The primary consideration is the added benefit, if any, that stems from using the patented technology, separate and apart from its incorporation in the standard. *E.g.*, Swanson & Baumol, "Reasonable and Nondiscriminatory (RAND) Royalties, Standard Selection, and Control of Market Power," 73 *Antitrust L.J.* 7–11 (2005) (Ex. 1013). As Schmalensee explained, "[i]f a technology is easy to invent around or has a ready supply of close substitutes, it is likely to receive a relatively lower compensation than others." (11/19/12 Tr. 165.) Even where a patented technology conferred substantial benefit, if there were "multiple alternatives before the standard was settled, its incremental contribution, properly measured, may be close

[1] Motorola also pointed to a letter sent by Microsoft to the FTC in 2011 as a supposed admission that hold-up has not been a problem. (11/16/12 Tr. 133 (Lynde); Ex. 2970.) Motorola ignores the context and antecedent of the statement, which clearly references a specific situation where the patent holder conceals its standard essential patents during development of the standard and then tries to exploit them after adoption. (*See* Ex. 2970 at MOTM_WASH1823_0054676 (understanding hold-up as "intentional or deceptive conduct in connection with patents that read on standards").)

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to or equal to zero." (11/19/12 Tr. 165–66 (Schmalensee).) Judge Posner agreed that a RAND royalty should reflect only "the value conferred by the patent itself as distinct from the additional value—the hold-up value—conferred by the patent's being designated as standard essential." *Apple, Inc. v. Motorola, Inc.*, 869 F. Supp. 2d 901, 2012 WL 2376664, at *11 (N.D. Ill. 2012). *See also* Layne-Farrar, Padilla, and Schmalensee, "Pricing Patents For Licensing in Standard-Setting Organizations: Making Sense of FRAND Commitments," 74 *Antitrust L.J.* 671, 672 (2007) (Ex. 1674).

Moreover, given the breadth of standards like H.264 and 802.11, a compliant product must support many features, including those rarely used, so a patent that confers little benefit may still have substantial hold-up value. This is especially true in situations where the standard includes technology primarily to enable backward compatibility, such as support for interlaced video in the H.264 standard or support for older "b" and "g" modulations in the 802.11 standard. (11/14/12 Tr. 52 (Sullivan); 11/15/12 Tr. 189–191 (Gibson).)

2. Patent Pools Provide Real-World Comparables for RAND Valuation.

Microsoft demonstrated that there were numerous, viable alternatives to the patents Motorola has claimed are essential and that the value of Motorola's contributions are therefore slight. (*E.g.*, 11/15/12 Tr. 114–44 (Gibson); 11/14/12 Tr. 117–31 (Orchard).) But Microsoft has not suggested that valuation of the Motorola patents rests on specific determinations of their value (if any) over these alternatives alone. The value of Motorola's patents is also reflected in real-world, market-based comparables, which provide a reasonable approximation of the value conferred by individual 802.11 or H.264 patents. Those comparables include patent pool royalty rates—substantially corroborated by other sources demonstrating that pool rates are reliable indicators of RAND royalties.

Pool rates must be reasonable, or the pool is unlikely to succeed. (11/13/12 Tr. 75 (Glanz); 11/13/12 Tr. 147 (Murphy) ("I have to have rates that are high enough to get

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participation by the sellers, the patent holders, the holders of the intellectual property rights; and I have to have rates low enough to get the end customers on board.").) Where a patent pool has licensed SEPs before widespread adoption of a standard, the risk of a "hold-up" royalty is mitigated by market forces: prospective licensees could reject hold-up royalties, and simply use a different standard. (11/13/12 Tr. 204 (Murphy).) In any event, because pools often share the SSOs' goal to promote widespread adoption of standards, they have the right incentive to avoid hold-up. (*Id.* at 147. 155.)

If a patent pool contains large numbers of patents from multiple patent owners, the pool rates must be set with an eye to the overall licensing situation, including the cost of obtaining all necessary licenses from other relevant patent holders. If one pool participant insists on a disproportionate royalty for its patents, the other licensors are unlikely to agree. For this reason, as Professor Murphy explained, pool rates provide a benchmark that serves the "goal of preventing royalty stacking." (11/13/12 Tr. 153.) The per-patent amount received by pool licensors also varies from year to year, due to the expiration of pool patents. Therefore, using pool rates as a benchmark provides a mechanism for adjusting royalties over time as licensed patents expire. (11/16/12 Tr. 104–05 (Lynde).)

Patent pools normally divide the collected royalties among the participating patent owners based upon the number of patents contributed to the pools, providing a real world illustration of how proportionality can be achieved when licensing SEPs. (11/13/12 Tr. 157–58 (Murphy).) Where royalties are paid in a lump sum for multiple patents, simply allocating the royalties among the different patents on a *pro rata* basis is a reasonable starting point, as both Motorola's former Vice President of Intellectual Property, Kirk Dailey, and Motorola's expert Charles Donohoe admitted. According to Dailey, where a license agreement involves a lump sum royalty payment for three patents, [redacted] (11/20/12

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Tr. 83–84.) [redacted] (11/20/12 Tr. 143.) Where, as here, Motorola never showed its patents were worth more than the average pool patent, the *pro rata* valuation approach is entirely appropriate. *See* Hovenkamp, "Competition in Information Technologies" U. of Iowa Legal Studies Research Paper No. 12-32 at 8–9 (Oct. 2012); Farrell et al., "Standard setting, patents, and hold-up," 74 *Antitrust L. J.* 603, 643 (2008).

The reliability of pools as a relevant comparable is supported by Motorola's own actions. In its ETSI submission, Motorola endorsed the use of pools as a benchmark and observed that pool rates can be expected to be "reasonable due to the dual role of most of the members (IPR owners, and future licensees)." (Ex. 1033 at 2; 11/16/12 Tr. 34–35 (Simcoe).) Motorola also participated in the formation of the MPEG LA H.264 pool, actively urged rates on the scale ultimately adopted, and approved the press release that announced the agreed-upon royalty rates. (11/13/12 Tr. 68–96 (Glanz).) Motorola's parent company Google is a licensee of the MPEG LA H.264 pool, and has agreed to license its patents and those of its affiliates at the pool rates. (Ex. 103, § 8.3.)

In its trial brief, Motorola argued that pool rates were not a reliable comparable because the "principal objective" of patent pools "is to minimize royalty exposure and maximize freedom of operation for licensees" (Dkt. No. 541 (Motorola Trial Brief) 6). But the evidence at trial showed the opposite, at least as to the MPEG LA H.264 pool. No fewer than four of the licensor participants in that pool (Dolby Laboratories, Electronics and Telecommunications Institute (ETRI), Fraunhofer-Gesellschaft, and Columbia University) derive "most or all of their relevant revenue from licensing, as opposed to making and selling products"—meaning that they have no "royalty exposure" or need to "maximize freedom of operation." (11/16/12 Tr. 87–89 (Lynde).) While some pools may aim to minimize royalty payments, the MPEG LA H.264 pool is different. It could not have attracted ETRI and the other similarly-situated

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licensors unless its royalty rates generated respectable returns. And Motorola's own conduct belies its arguments: in its ETSI submission, Motorola observed that pool rates can be expected to be "reasonable due to the dual role of most of the members, IPR owners, and future licensees." (Ex. 1033, p. 2; 11/16/12 Trial Tr. 34–35 (Simcoe).)[2]

Moreover, other participants have already reaped—as Motorola has—the benefits of participating in setting the standard, including advance knowledge, faster product development at reduced costs, and increased market size, so royalties flowing from broad licensing under a pool rubric provide a potential bonus. (11/16/12 Tr. 39–41 (Simcoe).) Even if it truly were the objective of the pools to set "low" rates, in testimony Motorola itself elicited, Schmalensee confirmed that even such "low" rates could still be RAND (11/19/12 Tr. 180), and offered no specific testimony as to whether he believed the MPEG LA H.264 Pool or Via Pool rates were "low" or not RAND. Motorola's expert in patent pools, Roger Smith, did not testify at all.

Motorola advanced a straw man argument that Microsoft's valuation approach somehow forces Motorola to join pools against its will. (Dkt. No. 541 (Motorola Trial Br.) at 1, 5–9.) But Microsoft is not asking the Court to order Motorola to join the MPEG LA H.264 pool or any other pool. Nor is Microsoft asking the Court to compel Motorola to participate in any particular standard-setting process. Microsoft merely showed that pool rates provide "the best available comparables" for determining the RAND royalty that Motorola is contractually obliged to charge. (11/16/12 Tr. 31 (Simcoe).)

Pools are not the only real-world comparable that may be considered in determining a RAND royalty. For example, sometimes the standard is substantially embodied in a

[2] Motorola tried to cite to various Microsoft documents to suggest that pools provide low rates, but Motorola misreads the documents. Exhibit 2345 is an email by Sullivan in which he correctly stated that SSOs and pools are separate and different organizations. He recognized that fundamentally-important IP may have greater value than the average patent in a pool, but based on his personal knowledge of H.264 and Motorola's contributions, he believes that none of Motorola's patents fall into that category. (11/14/12 Tr. 57 (Sullivan).) Motorola also points to a blog post written by Microsoft's Dean Hachamovitch suggesting that revenue played no part in Microsoft's decision to join the MPEG LA pool. (Hachamovitch Dep. at 227–32, 238–39; Ex. 2840. The post makes clear that he was not saying that the pool rates were low, merely that Microsoft had other motivations for joining.

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component sold as a separate unit—for example, in a Marvell or Atheros 802.11 chipset. (11/14/12 Tr. 62–63 (Ochs); 11/15/12 Tr. 24, 48–49 (Del Castillo); 11/19/12 Tr. 113–15 (Williams).) Where such a component substantially embodies the standard's functionality, as 802.11 chipsets do (11/14/12 Tr. 62 (Ochs)), the market value of the component reflects all of the costs associated with manufacture and distribution, other IP and the value of compliance with the overall standard. 802.11 chipsets are commodity items with cents per-unit profit margins, demonstrating that the value of a single company's portfolio of 802.11 SEPs is likely to be very low—consistent with the IEEE requirement that the RAND royalty be "nominal" for 802.11 RAND licenses. (Ex. 1130 at § 6.3.2.)

At trial, Motorola advanced the unsupported assertion that the 802.11 chip is not the smallest saleable unit with respect to its SEPs because the chips need support from other components of a computer, such as computer memory to store an 802.11 network password. (11/19/12 Tr. 99–100 (Williams).) The law is otherwise. Patent exhaustion "provides that the initial sale of a patented item terminates all patent rights to that item." *Quanta Computer, Inc. v. LG Elecs., Inc.*, 553 U.S. 617, 625 (2008). Exhaustion merely requires the authorized sale of a component substantially embodying an invention, and the Supreme Court has specifically held that a product may substantially embody an invention *even if* additional components are necessary to practice the patent. *Id.* at 631–34.

A product substantially embodies a patent for the purposes of patent exhaustion if it "embodie[s] essential features of [the] patented invention" and its "only reasonable and intended use [is] to practice the patent." *Id.* at 631. The Marvell chip is compliant with the 802.11 standard, and contains substantially all of what is needed to provide 802.11 functionality to a product like the Xbox 360. (11/14/12 Tr. 62 (Ochs).). Accordingly, the Marvell chip embodies essential features of any inventions disclosed in patents Motorola deems essential to 802.11. Further, the reasonable and intended use of the Marvell chip is to

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allow consumer devices like the Xbox 360 to access wireless networks using 802.11. (*Id.*) So the Marvell chip substantially embodies any of Motorola's 802.11 patents—even those that involve storing a password in Xbox or computer memory—and that is why [redacted] (11/20/12 Tr. 111–12.)

3. Bilateral Agreements Are Unlikely To Provide RAND Comparables.

While purely bilateral license agreements for SEPs may provide information relevant to a RAND valuation, such agreements pose significant problems. RAND licenses must be provided at reasonable, *non-discriminatory* royalties to any and all comers, regardless of their identity. While royalty structures might broadly vary by categories of products, RAND royalties should be essentially the same for each and every licensee—as the IEEE requires, RAND royalties must be "demonstrably free of unfair discrimination." (11/16/12 Tr. 175 (Lynde); Ex. 3394.) Those royalties should reflect the absolute value of the patents, not their relative value based on what the patent holder can extract from a particular licensee. A patent holder that wishes to pursue hold-up in violation of its RAND commitment would do so through a bilateral agreement. (11/19/12 Tr. 158 (Schmalensee).)

Before relying on a bilateral agreement as probative of a RAND royalty, the Court would have to be satisfied that the license did not reflect hold-up value and is free of unfair discrimination. *See LaserDynamics*, 694 F.3d at 79. A bilateral negotiation inherently reflects the specific situations and bargaining power of two particular firms, one of which is a patent holder armed with the power of a successful standard and the other an implementer at the mercy of the patent holder. The outcome of this bilateral negotiation could turn on how desperate the implementer is to preserve its ability to sell standard-compliant products, not on the value of the patent holder's innovation or, as Motorola euphemistically put it, the "industry

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conditions and other commercial considerations," or "unique licensing circumstances of each situation." (Dkt. No. 541 (Motorola Trial Br.) 2.) [redacted] (11/20/12 Tr. 64.) This may be "bilateral negotiation," but by definition, it is decidedly not RAND.

In support of its attempted reliance on bilateral license agreements, before trial Motorola urged a RAND valuation based on a "modified" *Georgia-Pacific* analysis. (Dkt. No. 541 (Motorola Trial Brief) 2.) However, as Schmalensee acknowledged, in the RAND context many of the individual *Georgia-Pacific* factors are suspect or irrelevant. (11/19/12 Tr. 150 (*Georgia-Pacific* "does not contemplate the RAND obligation," so "one would want to modify it to take that into account.").) For example, considering whether the patent holder might choose to maintain exclusivity over patent rights (Factor 4), or whether the patent holder competes with the prospective licensee (Factor 5), would be directly contrary to the RAND commitment. Likewise, the *Georgia Pacific* hypothetical negotiation is ordinarily set at the time of the prospective licensee's first infringement, which in this case would be long after widespread implementation of the standards, and would maximize the patent owner's ability to capture hold-up value.

Schmalensee had no idea what modifications to *Georgia-Pacific* were needed to ensure that the outcome of its hypothetical negotiation would be RAND: "I didn't have a proposal, other than to entrust to an experienced and knowledgeable licensing professional the task of modifying that analysis in light of the RAND commitment." (11/19/12 Tr. 161–62.) Donohoe, Motorola's license expert, [redacted] (11/20/12 Tr. 137–38.) If one were to try to modify the *Georgia-Pacific* analysis to fit the RAND context, that first factor—the "royalties received by the patentee for the licensing of the patent in suit, proving or tending to prove an

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established royalty"—would have to be modified. As Schmalensee admitted, "if the holder of a standard-essential patent approached a user of the standard, and succeeded in holding the user up, the 'hold-up' royalty would be reflected in a bilateral agreement." (11/19/12 Tr. 158.) Such royalties would obviously exceed a RAND royalty, and would either need to be excluded from the analysis altogether or adjusted downward to remove any "hold-up" portion. No Motorola witness explained how that might be done.

II. A RAND ROYALTY FOR MOTOROLA'S H.264 STANDARD-ESSENTIAL PATENTS IS A CAPPED AMOUNT IN THE RANGE OF 0.065 TO JUST OVER 0.2 CENTS PER UNIT.

A. The Value of the Complex H.264 Standard Bears No Relationship To Motorola's Technology.

The H.264 standard is large and technically complex, developed with the goal of providing improved compression capability relative to prior video standards. (Ex. 610; 11/13/2012 Tr. 211 (Sullivan).) H.264 provided a 50% improvement over existing technology, a result that was achieved by the summer of 2001, before Motorola began its participation in the H.264 standards setting process. (11/13/2012 Tr. 215–16 (Sullivan).) The H.264 standard resulted from the contributions of roughly 170 entities, who submitted over 2300 contribution documents as part of the H.264 development process. (11/14/12 Tr. 108 (Orchard).) The Telenor Group was the largest contributor of technology to the H.264 standard. It submitted the proposal that became the basis of the first draft of the design, and contributed many of the core innovations of H.264. (*Id.* at 115; 11/13/12 Tr. 215 (Sullivan).)

Telenor did not seek patents on its contributions, and thus most of the innovations reflected in the H.264 standard are not covered by patents. (11/14/12 Tr. 115 (Orchard).) In contrast to the patents in the MPEG-LA pool and the contributions of companies like Telenor, Motorola's patents play a minuscule role in the technologies associated with H.264. (*Id.* at 114.) Fourteen out of the sixteen patents that Motorola claims are essential relate to interlaced

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video, an old technology that is an artifact of earlier analog television, which has been fading into disuse because virtually all modern displays, such as those on smartphones, televisions, and computer screens, are progressive. (*Id.* at 104; 11/14/12 Tr. 48 (Sullivan).) Indeed, when asked why Motorola Mobility, Inc.'s parent corporation, Google, Inc., did not support interlaced content on the popular YouTube site, Motorola's technical expert testified that "it might have something to do with how they see the future." (11/19/12 Tr. 61 (Drabik); Ex. 592.)

H.264 development was originally directed solely to progressive video coding because the video compression community recognized that modern digital compression technologies are superior to the primitive technique of interlaced video scanning and concluded that interlaced video was waning in importance. (11/13/2012 Tr. 214 (Sullivan); 11/14/2012 Tr. 48 (Sullivan).) Motorola, which was a "late bird" to the standards setting process and wanted to ensure that it had a "seat at the table" with the companies that had actually done the lion's share of the work in developing the standard, pushed for the inclusion of special coding features for interlaced video contents, especially in the areas of MBAFF and PICAFF—technologies that had been used in prior video standards and were not invented by Motorola. (*Id.* at 12–13, 15–16, 56–57; Ex. 420 at 1.)

The record shows that the Motorola H.264 patents have little value. No Motorola expert performed a rigorous infringement analysis to show that the patents are actually essential to the standard, nor did any expert consider their validity, either to assess their value or simply to measure the significance of the patents in relation to prior art. (11/19/12 Tr. 49–50 (Drabik).) The absurd, deeply-flawed survey evidence Motorola sought to offer through its expert R. Sukumar only demonstrates the lengths to which Motorola had to go to make even a failed attempt to demonstrate any relevance of its H.264 technology to Microsoft's products. (11/19/12 Tr. 193–200.)

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There were suitable alternatives for all of Motorola's interlaced patents. (11/14/12 Tr. 117 (Orchard).) Single macroblock MBAFF that had been used in prior video coding standards was a suitable alternative for Motorola's three PICAFF patents (*id.* at 120), and was known to provide *better* compression for interlaced video than PICAFF (*id.* at 124–25). At trial Motorola could praise PICAFF only by comparing it to what was known *not* to be the state of the art for compressing interlaced video. (11/16/12 Tr. 211–12 (Luthra).) Likewise, single macroblock MBAFF was a suitable alternative to Motorola's eight patents related to paired macroblock MBAFF (11/14/12 Tr. 120 (Orchard)), and no test results show that the paired version performed any better. (*Id.* at 121.) Similarly, alternate scans proposed by Sony were alternatives to Motorola's two alternate scan patents (*id.* at 126, 128), and test results show that for interlaced video those scans provided better compression over the progressive-optimized zigzag scan than did Motorola's approach. (*Id.* at 127–28, 129–30.) Using three different neighboring blocks was an alternative to Motorola's interlaced-motion-vector-prediction patent, and could have been done without degrading performance. (*Id.* at 117, 131.)

The two Motorola H.264 patents not directed to interlaced video are limited by their means-plus claim language to specific disclosed hardware embodiments, which means they cannot cover Microsoft's software implementations of the H.264 standard. (Exs. 270 ('419 patent), 283 ('968 patent).) One of these two patents expired shortly after Microsoft incorporated support for H.264 into its products, and the other will expire in less than four months. (*Id.*; 11/14/12 Tr. 133, 138 (Orchard); 11/19/12 Tr. 56–57 (Drabik).)

B. The MPEG LA H.264 Patent Pool Royalties Establish a RAND Royalty for Motorola's H.264 Standard-Essential Patents.

The MPEG LA H.264 pool includes over 2,400 SEPs from 26 different patent owners; the pool patents have now been licensed by more than 1,100 licensees. (11/16/12 Tr. 85 (Lynde); Ex. 1544.) Licensor participants include technology powerhouses like Apple, Sony, Ericsson, LG, Cisco, Toshiba, and Fujitsu, as well as Microsoft. (*Id.* at 90–91.) The MPEG

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LA H.264 patent pool is "broad" and "rich," covering all fundamental aspects of the patented portions of the H.264 standard. (11/14/12 Tr. 112–14 (Orchard).) MPEG LA has evaluated each of these patents and confirmed their essentiality to H.264. (*Id.* at 111–12.) The pool rates were negotiated before widespread adoption of the H.264 standard, and H.264 faced competition at the time from other video compression standards. (11/13/12 Tr. 204 (Murphy).)

The reasonableness of the pool rates was assured by the fact that many of the licensors (who negotiated the rates among themselves) were also future licensees, so there were "both sides on board" and the rate negotiation was a "two-way street." (*Id.* at 156 .) The licensed patents are all SEPs for the same standard at issue here—H.264. (*Id.* at 157.) And, according to Garrett Glanz, who participated in the negotiations that established the pool, "the motivation for participating in the pool is to both ensure the success of the standard" and "to generate a reasonable revenue stream from your patents" that is consistent with your "RAND commitment to the standards organization." (11/13/12 Tr. 133–34.)

Net receipts from the pool are divided among the patent owner participants based upon the number of patents contributed to the pool. (11/13/12 Tr. 157 (Murphy); Exs. 1160–64.) Because of the large number of licensed patents, the large number of licensees, and the fact that the pool patents are all H.264 standard-essential patents, the per-patent pool royalty for the most recent year provides a good initial estimate of the RAND royalty for an average H.264 SEP. (11/13/12 Tr. 157–58 (Murphy).)

C. Motorola's H.264 Standard-Essential Patents Are Worth No More Than the Average MPEG LA Pool Patent.

The *pro rata* approach to the allocation of royalties for a portfolio of SEPs is entirely reasonable. First, all essential patents are equal in that they are required to implement the standard. Accordingly, most, if not all, pool licensing arrangements for SEPs adopt the *pro rata* approach. Second, Motorola's own practices demonstrate that portfolio licensing

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arrangements also reflect a *pro rata* approach, in that no individual patents are singled out for one-off valuation—instead, the patents in the group are licensed together at a uniform rate.

While in theory an individual patent may be of particular value, this takes on less significance where an entire portfolio is licensed. In any event, Motorola never proved that any of its H.264 SEPs was more valuable than the average pool patent, and thus was somehow entitled to a premium over the MPEG LA H.264 pool rates. Kirk Dailey, when asked, responded: [redacted] (11/20/12 Tr. 110.) If anyone at Motorola ever did make that study, it has never seen the light of day, and no Motorola expert offered such any such opinion. Dr. Drabik also said he had not performed any comparison of the Motorola H.264 SEPs with the MPEG LA H.264 pool patents. (11/19/12 Tr. 60.) Instead, the evidence strongly suggests that the Motorola patents have far less value than the thousands of patents in the pool, including those relating to all the "core components" of the H.264 standard. (11/14/12 Tr. 112 (Orchard).)

D. Google Has Agreed That the MPEG LA Pool Rates Are Presumptively RAND Royalties for Motorola's H.264 Standard-Essential Patents.

Motorola's corporate parent, Google, Inc., is a licensee of the MPEG LA H.264 pool, and its license agreement obliges it to license its affiliates' H.264 SEPs to other MPEG LA pool licensees (such as Microsoft), upon request. (Ex. 103, ¶ 8.3.) While a royalty would be payable in connection with such a license, Google's agreement with MPEG LA recites that the "Licensors' per patent share of royalties" paid by Google to the MPEG LA pool "shall be presumed to be a fair and reasonable royalty rate" for any Motorola H.264 SEPs. (*Id.*) Motorola's parent company therefore has agreed that a RAND royalty for the specific Motorola H.264 patents at issue is presumed to be the very MPEG LA H.264 pool rates upon which Microsoft bases its proposed RAND royalty. This is powerful, if not conclusive, evidence that the MPEG LA H.264 pool rates are RAND. (11/16/12 Tr. 97 (Lynde).)

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E. A RAND Royalty For Motorola's H.264 Standard-Essential Patents Is a Capped Amount In the Range of $167,000 (0.065 Cents Per Unit) to $521,000 (Just Over 0.2 Cents Per Unit) With the Best RAND Royalty Estimate Being $502,000 (Just Under 0.2 Cents Per Unit).

Dr. Matthew Lynde performed the necessary calculations and determined what the MPEG LA H.264 pool rates work out to be when applied to Motorola's H.264 SEPs. The best RAND royalty estimate can be obtained with reference to the MPEG LA royalty formula, after adding the Motorola H.264 SEPs but otherwise leaving the MPEG LA H.264 pool unchanged. Lynde calculated what Motorola's share of the annual pool royalties paid by Microsoft would have been in this scenario: just under 0.2 cents per unit, or a total of $502,000 for the most recent year. (11/16/12 Tr. 99–100 (Lynde).) Lynde used the same annual royalty caps in the MPEG LA H.264 pool. (*Id.* at 99–100, 104; Ex. 1161.) Basing a RAND royalty for Motorola on the MPEG LA H.264 pool rates is generous to Motorola because it has already enjoyed the benefits of getting its patented technology included in the standard: diffusion of Motorola technology, lower cost to Motorola in implementing the H.264 standard, and faster time to market for its own H.264-compliant products. (11/16/12 Tr. 40 (Simcoe).) The licensor-members of the MPEG LA H.264 pool that do not sell standard-compliant products receive pool royalties only and enjoy no such benefits. (11/16/12 Tr. 87–89 (Lynde).)

Lynde noted that the documents governing the MPEG LA H.264 pool permit the licensors "to increase the pool rates up to a maximum of ten percent should they deem that useful and appropriate, for example, if there were more patents in the pool." (*Id.* at 100.) Lynde then performed an alternative calculation, assuming that the inclusion of Motorola's H.264 SEPs would have prompted the 10% rate increase. In that case, Motorola's share of the annual pool royalties paid by Microsoft would increase to 0.204 cents per unit, or $521,000 for the most recent year. (*Id.* at 161.) This provides an upper bound on the RAND royalty.

Finally, Lynde looked at what Motorola would receive if Google complied with its obligations under its own MPEG LA license. In that case, Motorola would be obliged to

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accept "Licensors' per patent share of royalties" paid by Google to the MPEG LA pool as "a fair and reasonable royalty rate" for Motorola's H.264 SEPs. (Ex. 103, ¶ 8.3.) Royalties paid by pool licensees are subject to annual caps (Ex. 103, ¶ 3.1.1), and Google's cap reduces the effective per unit rate substantially. On this basis, Motorola would be entitled to a royalty of 0.065 cents per unit, or $167,000 for the most recent year. (11/16/12 Tr. 102–04 (Lynde).)

As Lynde explained, all of these calculations could easily be performed for other years, including future years, and counterpart figures determined for those years, taking account of patent expirations over time. (11/16/12 Tr. 104 (Lynde).) Therefore, if the Court adopts one of these approaches as the basis for a RAND royalty for the most recent year, the parties ought to be able to agree on the annual royalty amount that is payable for other years, using the same approach. Failing agreement, the Court could resolve the issue.

III. A RAND ROYALTY FOR MOTOROLA'S 802.11 STANDARD–ESSENTIAL PATENTS IS AN AMOUNT IN THE RANGE OF 3 TO 6 CENTS PER UNIT.

A. The Broad 802.11 Standard is Dominated By Unpatented Technology and Motorola's Patents Reflect At Most Marginal Contributions.

Motorola's 802.11 SEPs concern, at most, only a small portion of a limited number of technology areas in the 802.11 standard and are not central to enabling those technology areas; at best, these patents cover less than one percent of the 802.11 standard. (11/16/12 Tr. 85, 154–55 (Gibson).) Like H.264, the 802.11 standard is immense and technically complex; the current draft of the standard is almost 2800 pages long. (11/16/12 Tr. 88–89 (Gibson); Ex. 386a.) The development of the first draft of the 802.11 standard took seven years and development of the standard continues today. (11/16/12 Tr. 92–93 (Gibson); Ex. 520.) Over 1,000 companies have participated in the 802.11 standard-setting process. (Ex. 1594; 11/16/12 Tr. 94–95 (Gibson).) Today, over 450 representatives from 150 organizations are actively working on the standard. (11/16/12 Tr. 94–95 (Gibson); Ex. 514.) Over 350 patents have been specifically identified as essential to the 802.11 standard via letters of assurance to the IEEE,

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and 94 companies have filed "blanket" LOAs, including wireless communication industry leaders such as Atheros, Broadcom, Qualcomm, Research in Motion, and Intel. (11/15/12 Tr. 99–100 (Gibson); Exs. 7, 1592; 11/19/12 Tr. 118–19 (Williams).) Marvell also has a very valuable 802.11 portfolio and owns a few hundred issued patents essential to the 802.11 standard. (11/14/12 Tr. 64 (Ochs).) Even all of these patents taken together represent just a fraction of the technology in 802.11, because the majority of the technology in the 802.11 standard (such as data modulation, direct sequence spread spectrum, error control coding, orthogonal frequency division multiplexing, etc.), is not patented, predates the Motorola patents, and was based on a long history of research and development by companies, government agencies, and academic institutions. (11/16/12 Tr. 96–97, 154 (Gibson).) Only a very small number of companies holding 802.11 SEPs actively seek royalty-bearing licenses. (11/13/2012 Tr. 160 (Murphy).)

No Motorola expert conducted a rigorous infringement analysis to determine definitively which patents are actually essential to 802.11. (11/19/12 Tr. 67–134 (Williams).) Nor did any expert consider the validity of the patents or specifically refute testimony provided by Gibson that suitable alternatives existed for all of them. (*Id.*) Moreover, the Motorola 802.11 patents are rapidly expiring and have diminishing value.

Even as the 802.11 standard dominates the market today for short and mid-range wireless network devices, development continues on new versions. Much of that development draws upon technology contributed by companies such as Marvell, Atheros, and Intel that make the semiconductors that substantially embody the commercial implementation of the standard. These are commodity chips, used in broad ranges of end products, but providing the same wireless connectivity regardless of the end product involved. Market prices rest on strong competition, and are now about $3–4 per chip. Chip makers both rely on their own intellectual property and license-in intellectual property to be used in developing chips.

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License rates for fundamental IP, including patent rights, designs, and commercial know-how, are typically in the range of 1% of chip price. (11/14/12 Tr. 71–72 (Ochs).)

B. Relevant Benchmarks Establish an Appropriate Royalty for Motorola's 802.11 Patents.

The starting point in determining a RAND royalty for Motorola's portfolio of 802.11 SEPs is Motorola's contract with the IEEE, the SSO that issued the 802.11 standard. Under that contract, Motorola could recover only "nominal" royalties from sellers of 802.11 standard-compliant products. Specifically, the 1994 operations manual for the IEEE standards is "part of the RAND commitment" that Motorola made, and it requires that RAND-committed SEPs be "made available at nominal competitive costs to all who seek to use it for compliance with an incorporated IEEE standard." (11/16/12 Tr. 28–29 (Simcoe); Ex. 1130 at § 6.3.2.)

One benchmark is the 802.11 patent pool operated by Via Licensing Corporation. *See Fujitsu Ltd. v. Belkin Int'l, Inc.*, No. 10–CV–03972–LHK, 2012 WL 5835741, at *3 (N.D. Cal. Nov. 16, 2012) (denying motion to exclude reasonable royalty testimony based on the Via pool agreement). Taken alone, this pool is not an ideal benchmark because it has not enjoyed widespread success: it has only five licensors/licensees (ETRI, Japan Radio, Phillips, LG, and Nippon Telegraph), and six additional licensees that pay royalties to the pool but have contributed no SEPs. (11/16/12 Tr. 106–07 (Lynde).) The pool was formed around the time that the 802.11 standard was first being widely adopted. This timing may have allowed the pool to capture higher royalties, "because the investments" in making 802.11 standard-compliant products "had already been made, and therefore licensors would have had more leverage when they went to get licenses." (*Id.* at 107–08.) The fact that the Via pool has only attracted six licensees (compared to the more than 1,100 licensees in the MPEG LA H.264 pool) suggests that the "rates are too high." (*Id.* at 117.)

Another way of estimating a RAND royalty for Motorola's 802.11 patents can be derived from the testimony of Jennifer Ochs of Marvell. Marvell makes the 802.11 chip which

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contains "substantially all that is needed to provide 802.11 functionality" to Microsoft's Xbox console. (11/14/12 Tr. 62 (Ochs).) In the context of patent damages, reasonable royalties are "based not on the entire product, but instead on the 'smallest salable patent-practicing unit," unless the patent(s) in question form the basis for customer demand for the entire product. *LaserDynamics*, 694 F.3d at 67. The law is clear that this standard is not met merely because a functionality is important or even critical to a product. *Id.* at 68. Motorola presented no evidence that its 802.11 patents form the basis for customer demand for the Xbox. The evidence shows that Xbox games drive customer demand for the console. (11/25/12 Tr. 12 (Del Castillo).)

Accordingly, a reasonable royalty (and certainly any RAND royalty) for Motorola's 802.11 patents must be reasonable with respect to the smallest salable patent-practicing unit—the Xbox's 802.11 Marvell chipset. Marvell views its license from ARM Holdings (which provides "significant IP that can be readily incorporated into a semiconductor chip," including patent licenses, design, and know-how that is "ready to use") as setting the "high ceiling" for inbound intellectual property licenses applied to its chips. (11/14/12 Tr. 71–72 (Ochs).) The royalty rate for the ARM license is "1% of the average selling price of a chip." (*Id.*) If Motorola had been paid a royalty for its 802.11 patents that was equal to 1% of the $3 selling price for Marvell's 802.11 chipset, it would have received 3 cents per unit, or $428,000 in the most recent year. (Ex. 1167; 11/15/12 Tr. 25 (Del Castillo).)

Motorola also failed to prove that its 802.11 patents have any unique value. No competent evidence was offered on a patent-by-patent basis that Motorola's patents are, in fact, essential. While Gibson testified about specific alternatives that could have been adopted in the 802.11 standard in lieu of the technology supposedly embodied in *each* of the Motorola patents, Motorola's expert Williams addressed only two of those patents. (11/15/12 Tr. 114–44 (Gibson); 11/19/12 Tr. 102–06 (Williams).) Williams tried to wave all of this aside by

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insisting that he considered something to be an alternative only if it could have been inserted into the standard without requiring any other change (11/19/12 Tr. 115–16), but as Gibson explained, the engineers developing the standard were fully capable of modifying related sections to accommodate alternatives (11/15/12 Tr. 115–16).

Beyond that, the evidence showed that the core Motorola patents are old, that many are useful only for backwards compatibility with a declining share of the total installed base, and that they are rapidly expiring. (11/20/12 Tr. 156 (Lynde).) Motorola's portfolio has far less value than modern portfolios like those of Marvell, which are pertinent to the newest versions of the standard. (11/14/12 Tr. 64 (Ochs).)

C. A RAND Royalty for Motorola's 802.11 Standard-Essential Patents Is in the Range of $428,000 (3 Cents per Unit) to $920,000 (6.5 Cents per Unit), with the Best RAND Royalty Estimate Being $736,000 (5 Cents per Unit).

As indicated above, a RAND royalty calculated at 1% of the $3 selling price for Marvell's 802.11 chipset would work out to 3 cents per unit, or $428,000 in royalties in the most recent year. Adopting the Via pool's framework, Dr. Lynde offered calculations based on sales volumes and the Via pool's fee structure, and on the assumption that Motorola's 802.11 SEPs had been included in the pool, along with all other 802.11 patents that were specifically identified in letters of assurance provided to IEEE. (Ex. 1167.) Dr. Lynde gave Motorola every benefit of the doubt because he assumed that all of the patents asserted to be essential by Motorola were actually essential, and he added to the pool only those patents that have been specifically identified by companies filing letters of assurance. On this basis, Motorola's share of Microsoft's payment in the most recent year would have been 5 cents per unit or $736,000. (11/16/12 Tr. 114–15 (Lynde); Ex. 1167.)

In addition, to generate an upper bound for the RAND royalty estimates, Lynde applied the optional increase of 25% that the Via pool allowed "should, for example, the participation and contribution of patents increase." (11/16/12 Tr. 115–16 (Lynde).) This produced an

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estimated annual Motorola royalty for the most recent year of 6.5 cents per unit or $920,000. (*Id.*) Under the governing IEEE contract specifying "nominal" compensation for essential patents, the RAND royalties proposed by Microsoft's experts are assuredly above—not below—the nominal compensation Motorola obligated itself to accept.

Royalty estimates based on the Via pool rates are generous to Motorola in at least two respects. First, given the available data, Motorola's "share" of patents in the "reconstituted" Via pool was grossly overstated. Lynde used the number of Motorola SEPs identified in the original 2010 demand letter, not the much lower number asserted at trial. And Lynde used a low number for other SEPs. Many of the 802.11 letters of assurance that were provided to IEEE were "blanket" letters of assurance that did not identify specific RAND-committed patents. The exact number of unidentified patents is unknown, but is "certainly in the thousands." (11/16/12 Tr. 114 (Lynde).) Had the large portfolios from companies such as Marvell, Atheros, Qualcomm, and other 802.11 pioneers been accounted for, the estimate of Motorola's RAND royalty would have been considerably less, because Motorola's proportional share of pool royalties would shrink. Second, as explained above, the Via pool rate starting point was likely "too high." (11/16/12 Tr. 117 (Lynde).)

IV. CHARLES DONOHOE'S RAND ROYALTY ESTIMATES ARE UNSUPPORTED BY EVIDENCE AND DEEPLY FLAWED.

Charles Donohoe, an attorney, provided all of the testimony concerning Motorola's estimate of a RAND royalty in this case. Donohoe based his analysis on [redacted] (11/20/12 Tr. 137–38.) [redacted] (*Id.* at 138.)

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Donohoe never actually provided a royalty for Motorola's H.264 or 802.11 patents. Instead, he purported to provide a royalty specific to Windows (for its use of H.264 patents) and for Xbox and the wireless adapter (for their use of 802.11 patents). Donohoe offered no testimony as to what royalties Microsoft would pay for the Xbox's use of Motorola's H.264 patents. In the case of Windows and H.264, Donohoe gave sparse testimony. [redacted] (*Id.* at 145.) [redacted] (*Id.* at 146.) [redacted] (*Id.* at 145–46.) [redacted] (11/20/12 Tr. 142.) [redacted] (*Id.* at 142, 148.)[3] [redacted] (11/20/12 Tr. 138–39 (Donohoe); Ex. 13.) [redacted] (Ex. 3373; 11/20/12 Tr. 96–100 (Dailey).) [redacted]

[3] [redacted] (11/20/12 Tr. 144) [redacted] These royalty values are thus meaningless, and entirely dependent on the relative numbers of standard-compliant units sold by Microsoft and by Motorola in any given year—they are not freestanding RAND royalty rates.

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[redacted] (11/20/12 Tr. 100 (Dailey).) Under any *Georgia-Pacific* analysis (modified or otherwise), the Vtech license is irrelevant under Factor 1, which concerns "royalties *received* by the patentee" that prove or tend to prove "an *established royalty*." *ResQNet.com, Inc. v. Lansa, Inc.*, 594 F.3d 860, 869 (Fed. Cir. 2010) (emphasis added).

Further, the 802.11 and H.264 portfolio licenses were inextricably linked to the settlement of Motorola's substantial infringement claims against Vtech involving patents unrelated to the standards at issue here. Motorola had sued Vtech in 2007 for infringing its cordless and corded phone patents. [redacted] (11/20/12 Tr. 87–89 (Dailey).) [redacted] (*id.* at 89), [redacted] (*Id.* at 89–91; Ex. 1681 at MOTM_WASH1823_0392621.)

By October 2011, Motorola's 802.11 and H.264 portfolios had been injected into the settlement discussions. (Ex. 2832.) The Vtech agreement followed shortly thereafter. [redacted] (11/20/12 Tr. 93 (Dailey); Ex. 13 at §§ 3.1(a)-(b), 4.1), [redacted] (11/20/12 Tr. 93–94 (Dailey); Ex. 13.) Because Vtech licensed Motorola's H.264 and 802.11 portfolios as part of package deal, that license has no relevance to the value of Motorola's H.264 and 802.11 portfolios. (11/13/12 Tr. 184–85, 192–93 (Murphy).) Vtech had every incentive to agree to an excessive royalty to Motorola's H.264 and 802.11 patents—a rate it might never actually pay—in order to reduce its actual exposure on Motorola's non-SEP infringement claims. And Motorola had every incentive to engage in the same trade. Within a month of signing the 2011

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Vtech agreement, Dailey [redacted] (11/20/12 Tr. 94–95 (Dailey).) [redacted] (11/20/12 Tr. 139 (Donohoe).) [redacted] (Ex. 2833; 11/20/12 Tr. 104–06 (Dailey).) [redacted] (11/20/12 Tr. 106–07 (Dailey).) [redacted] (11/20/12 Tr. 115–16 (Dailey); Ex. 2800.) As Schmalensee testified,

> if H.264 video standard essential patents were licensed together with patents that were essential for other standards, one would need to estimate the value of the other patents and subtract it out.

(11/19/12 Tr. 160.) *See LaserDynamics*, 694 F.3d at 79; *ResQNet.com*, 594 F.3d at 869, 872. While Schmalensee said that the required apportionment of the value of these different portfolios [redacted] was a "tough thing to do" (11/19/12 Tr. 160), the record demonstrates that the "value of the other patents"—the cellular patents—represented the entire value [redacted], which means that the additional

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value of the 802.11 and H.264 patents [redacted] is zero. [redacted] (11/20/12 Tr. 74.)

Leaving aside the fact that [redacted] provides no evidence of the value of Motorola's 802.11 and H.264 patents, the agreement was obviously the product of hold-up. [redacted] (11/20/12 Tr. 101 (Dailey).) [redacted] (Ex. 1672; 11/20/12 Tr. 102–03 (Dailey).) Even if an agreement entered into under such circumstances could be thought remotely comparable to a true RAND license, the hold-up element would need to be subtracted out. [redacted] (11/20/12 Tr. 140 (Donohoe).) [redacted] (11/20/12 Tr. 140, 147.) In fact, the stark differences confirm that these agreements are wholly incomparable. [redacted] (11/20/12 Tr. 81–82 (Dailey); Ex. 1589), and would have played absolutely no role even in the hypothetical negotiation Donohoe suggested should inform a RAND royalty in this case. [redacted] (11/20/12 Tr. 81–82.) [redacted]

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[redacted] (*Id.* at 84–85.) [redacted] (11/20/12 Tr. 140), [redacted] (11/20/12 Tr. 81 (Dailey).) [redacted] (11/20/12 Tr. 138), [redacted] (11/20/12 Tr. 152–53.) While in the cases of both Windows and Xbox, [redacted] (*id.* at 143–45), [redacted] (11/20/12 Tr. 137.) No Motorola witness presented any plausible reason why the long established entire market value rule can be disregarded in the RAND context.

The absurdity and bad faith inherent in Motorola's blind application of a 2.25% rate to end products was made abundantly clear in Motorola's dealings with chip supplier Marvell.

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As Marvell's Jennifer Ochs explained, when she wrote to Motorola requesting a license to Motorola's 802.11 portfolio that would protect Marvell's customers (including Microsoft), Motorola responded with a proposed agreement that would require Marvell to pay a 2.25% royalty based on the end products incorporating its 802.11 chipsets and sold by Marvell's customers—whether a $400 Xbox[4] or $100,000 automobile. (11/14/12 Tr. 63, 68–70 (Ochs); Ex. 16.) As Ochs explained, it would be a "going-out-of-business model to pay such rates" because even in the case of the Xbox the "royalty is slightly higher than the cost of the chip itself." (11/14/12 Tr. 70, 69.) That cannot be RAND.

Donohoe's claim that Motorola's opening licensing demand "is RAND" lacks any support in the record, and is a worthless *ipse dixit*. *See General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997); *Wendler & Ezra, P.C. v. Am. Intern. Group, Inc.*, 521 F.3d 790, 791 (7th Cir. 2008) (per curiam) ("An expert who supplies nothing but a bottom line supplies nothing of value to the judicial process.") (quotation marks omitted); *Hathaway v. Bazany*, 507 F.3d 312, 318 (5th Cir. 2007) ("[A]n expert's testimony that 'it is so' is not admissible.").

Even if it had any basis beyond Donohoe's say-so, Motorola's proposal is facially not RAND. Donohoe sought to determine how much could Motorola extract from Microsoft in a bilateral negotiation. Thus, [redacted] (11/20/12 Tr. 144.) Donohoe did not explain how that position could be reconciled with Motorola's contractual obligation to grant nondiscriminatory licenses. Moreover, under Donohoe's approach, the significance of Motorola's patents to Microsoft's products would be important, but no Motorola witness testified as to what specific

[4] Actually, Motorola's proposed license to Marvell explicitly excluded any protection for Microsoft even thought Marvell had specifically sought it. (11/14/12 Tr. 68 (Ochs).)

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value its patents provided to Microsoft's products, beyond talking about the legally-irrelevant value of standard compliance. (11/19/12 Tr. 211–13 (Dansky).) That only confirms Motorola's effort to capture the hold-up value of standardization in violation of its RAND commitment. (11/19/12 Tr. 169 (Schmalensee).) The hold-up effort is further confirmed by Motorola's refusal to acknowledge the expiration of its patents: Motorola seeks the full 2.25% royalty so long as it still has a single unexpired SEP. That is the very definition of hold-up.

V. DETERMINING A GOOD FAITH RANGE

At the end of the trial, the Court asked the parties to address the "standard of what constitutes a good-faith range." (11/20/12 Tr. 171.) There are potentially two aspects to a "range"—the range of royalties that are truly RAND, or the range of royalties demanded by the patent holder that, while not RAND, may be deemed consistent with a contracting party's good faith obligations. As to the former, in Microsoft's view, one applies the RAND principles as described above and then looks for an upper bound for the RAND royalty that is supported by the economic evidence. A RAND-committed patent holder can always agree to a royalty-free license; the upper bounds were provided by Dr. Lynde.

As to the latter, in Microsoft's view, RAND (and good faith) requires that the patent holder's demands hew closely to what is actually RAND. Whether Motorola's demands were made in good faith will be determined during the "breach" phase of this case, consistent with Washington law and its implied covenant of good faith and fair dealing. Washington adopts the definition set forth in Restatement (Second) of Contracts § 205. *Edmonson v. Popchoi*, 172 Wn.2d 272, 280, 256 P.3d 1223 (2011); *Frank Coluccio Const. Co., Inc. v. King Cty.*, 136 Wn. App. 751, 766, 150 P.3d 1147 (2007). The Restatement provides examples of violation of the duty of good faith in performance of contractual obligations ("evasion of the spirit of the bargain, lack of diligence and slacking off, willful rendering of imperfect performance, abuse of a power to specify terms, and interference with or failure to cooperate in other party's

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performance") and in the "assertion, settlement and litigation of contract claims and defenses" (such as "dishonest conduct such as conjuring up a pretended dispute, asserting an interpretation contrary to one's own understanding, or falsification of facts"). § 205 cmts. d, e. Bad faith includes "'obstinate conduct that necessitates legal action' to enforce a clearly valid claim or right," "vexatious conduct during the course of litigation," or the "intentional bringing of a frivolous claim [or] defense with improper motive." *Rogerson Hiller Corp. v. Port of Port Angeles*, 96 Wn. App. 918, 927–28, 982 P.2d 131 (1999).

Microsoft submits that a demand exceeding the upper bound of what is actually RAND would presumptively violate the duty of good faith and fair dealing, as the very purpose of the RAND commitment is to make non-discriminatory offers that anyone can accept, especially where, as here, the patent holder is concurrently seeking injunctive relief and has an incentive to forestall the consummation of a license. Any offer above the high end of RAND would require proof of extenuating circumstances to establish that the offer was legitimately made in good faith. When the patent holder makes the RAND commitment, it gives up the right to employ the conventional process of negotiation to extract all that the traffic will bear from individual implementers. Because the non-discriminatory royalty has to be equally available to all, the demand cannot be justified by the posture or needs of any individual implementer. It is not a rug bazaar. A multiple of a RAND royalty would be very difficult to justify under any circumstances because that would skew the ensuing discussions away from, not toward RAND.

CONCLUSION

For Motorola's H.264 SEPs, the Court should find that a RAND royalty for Microsoft is no more than $502,000 for the most recent year. For Motorola's 802.11 SEPs, the Court should find that a RAND royalty is no more than $736,000. The Court should direct the parties to try to reach agreement on annual royalty amounts for other years, using the same basic approach, and to report back to the Court.

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DATED this 14th day of December, 2012.

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CERTIFICATE OF SERVICE

I, Linda Bledsoe, swear under penalty of perjury under the laws of the State of Washington to the following:

1. I am over the age of 21 and not a party to this action.

2. On the 17th day of December, 2012, I caused the preceding document to be served on counsel of record in the following manner:

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